

SCCARA-GRAM



Santa Clara County
Amateur Radio Association

Volume 28, Number 2

February 2012



Meeting Room Change

Kaiser has need for the whole conference area where we usually meet, so they changed our February meeting to **room 125 in the Hospital building**. Enter the Hospital building (the building just to the right of the one we usually meet in) and proceed to the lobby area. Make a right turn just before the elevators and proceed down the corridor to the end. Room 125 will be immediately around the corner to your right. There will be signs directing you there. Sorry for the inconvenience.

Lou WA6QYS

President's Prose

The latest burst of sunspot activity resulted in a lot of news and predictions, but I didn't notice any remarkable changes on the HF bands. Maybe I wasn't paying close enough attention. If any of you arrived at a different conclusion, tell us about it at the next meeting.

A lot of items were discussed at the last Board meeting. Rather than address each of them here, see the minutes of the meeting elsewhere in this issue. Remember, the Club business takes place almost entirely at the Board meetings and not at the General meetings. If anyone has any particular issues, tell a Board member or come to the meeting. We start as soon as the 7:30 net is over and try to adjourn by 9:00.

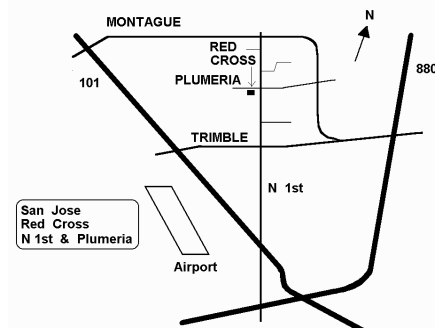
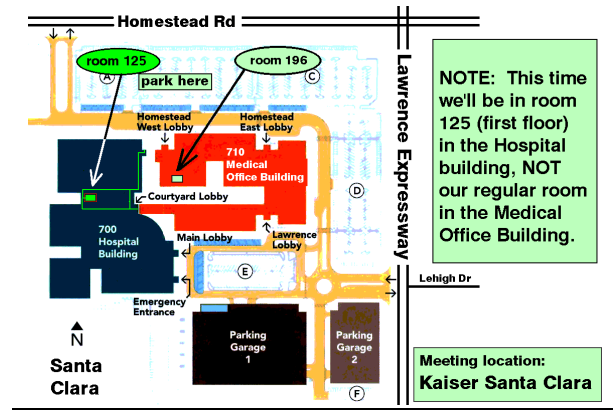
Most of us have more projects to work on than we have time to accomplish them. I have a Yaesu FL-7000 linear amplifier a Kenwood TS-950SDX transceiver in the queue to check-out for SVECS and make arrangements to sell. I recently replaced the internal battery in a Kenwood TM-742 triple-band mobile for a friend and now I understand why Kenwood says send them back to the factory—what a job! No wonder they charge a hefty fee. Another project was troubleshooting a Yaesu TS-940 for another ham. The radio stopped working on 40-meters and as near as I could tell the problem appeared to be a failed crystal in one of the mixer circuits. At last report, he ordered a new crystal, replaced the old one and the radio works again. I can't remember ever seeing a crystal fail before. There is also the ICOM IC-W2A belonging to another friend that was damaged while the battery was being charged. He disassembled it on my bench and we determined that at least one (of several) voltage regulators had failed. He is looking for a replacement part (surface mount). The prognosis isn't good since there may have been collateral damage due to the original failure.

Calendar

- 2/13 **SCCARA General Meeting**
- 2/20 **SCCARA Board Meeting**--(San Jose Red Cross, 7:30p, all are welcome)
- 3/10 **Electronic flea market** at DeAnza College

General Meeting

Day: Monday, Feb. 13, 2012
Time: 7:30 PM
Place: Kaiser Santa Clara, Hospital Rm 125
Featuring: Ian Klufft, KO6YQ, on Amateur Radio balloon distance/duration world record set by CNSP-11 from San Jose.



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The deadline for articles is the last Monday of the month.

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL). The club station is W6UW.

Web page: <http://www.qsl.net/sccara>.

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(all officers are also directors)

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SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:
2 meter: 146.985 - PL 114.8
70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The two meter repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

SCCARA NETS

On our two meter repeater: Mondays at 7:30 PM, (not the second Monday--our meeting night). Coordinator: Don Village, K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally Britten, KA6YMD. Visitors welcome.

N0ARY PACKET BBS

SCCARA hosts the packet BBS N0ARY (Mt Umunhum). User ports: 144.93 (1200 baud), 433.37 (9600 baud), telnet sun.n0ary.org (login "bbs"). Sysop: Gary Mitchell, WB6YRU (packet info: www.n0ary.org/ncpa)

TELEPHONE NUMBERS

SCCARA contact Clark KE6KXO:	408 262-9334
ARRL/VEC Silicon Valley VE group, Morris Jones, AD6ZH:	408 507-4698

As for my own problems, my Daiwa SS-330W power supply died several months ago and needs my attention. My Heath SB-200 amplifier appears to be oscillating and needs troubleshooting. Then there is the Collins 30L-1 linear amplifier that I need to check out before I put it on the air. Fortunately I hardly ever use an amplifier so neither of them are pacing items. I'd also like to refurbish my 40/20/10 fan dipole and install a new push-up mast. So it goes. Finally, I purchased a Netgear wifi range extender which I can "see" on my remoted wireless computers, but can't get to connect - I'll be looking for someone to help me with that.

Don't forget the 2-meter FM net on Monday nights, and the 10-meter SSB net (28.385 MHz USB) on Thursday nights. Anyone who has a license can join in.



73, Don - AE6PM

Secretary Says

It's that time again - please renew your membership, and if possible mark the box for internet delivery. Postage rates are going up again, and internet delivery saves the club money, which helps keep dues from going up. Yes, you have to pay for ink and paper if you print it out, but at least it won't be mangled by the post office machines. Please don't wait!

While I'm at it, please come to the meetings! It would be nice to put a face to the entry in the membership database, and we have some really interesting speakers coming up in the next few months. Hope to see you at the next meeting!

Viki

Work in Progress

Goetz Brandt, K6GKB

I'd like to start a new column in the *SCCARA-GRAM*, starting with this issue. I call it "**Work in Progress.**"

The general idea is to report on what you, the SCCARA members are up to in your shacks. It can be anything from kit building to installing a new antenna to trying to working out some problem you're having... all that is fair game.

Not only would this be interesting and informative for the rest of us, but someone else might know about what you're working on now and may have some helpful suggestions.

So, what have you guys been up to lately?

Work in progress for January includes Joe (W6SNV), John (W6JPP) and the club (W6UU).

Joe has picked the spot for his 20 foot crank up tower and will be selecting a contractor to dig the hole, build the rebar cage and pour the concrete for the base. Joe is inclining toward the selection of a three, maybe four element beam that has to have a turning radius that will keep things in his own back yard. Projecting the silhouette of the lowered tilt over tower onto the ground has confirmed that there is enough room for the assembly and installation of the beam (albeit in the vertical position). This in spite of several trees that could have been obstacles. In case there was any doubt, the measurements were confirmed by Clark

Murphy (KE6KXO), Bob Schwimmer (N3FAW), and Goetz Brandt (K6GKB). With that many fingerprints on his plans, what could possibly go wrong?

John has decided his broken beam atop his tower has been AWOL long enough. The Cushcraft A3S with the 40 meter add on has a broken trap. Externally it can be spotted by its sagging misalignment with its adjoining section. John says it is shorted out and he has decided to replace the entire antenna with a used Mosley TA34 Senior, gifted to him some time ago. This, after he bought a Hy-Gain TH-6 which turned out to be too big for his property. The discontinued Thunderbird TH-6 antenna was still in its original box, brand new, shipped from Lincoln Nebraska! He is now completely disassembling the Mosley TA34, polishing the overlaps, using newly purchased fasteners and end caps and reassembling with the expectation that it will perform as new. This will replace the present Cushcraft A3S atop his 55 foot tower which he only cranks up to 45 feet. I can already smell the hotdogs at the antenna party in the near future.

The club has an ongoing project to duplicate the club's 2 meter repeater to an adjacent site. A site has been found that is within 200 yards of the current eagle rock location and preliminary tests are being made to verify that the coverage remains the same. A five section push up tower has been raised to 36 feet. At the top is a Comet multi band vertical antenna. Greg Lane (FNA) was the brains behind this installation. He was supervised by Clark Murphy (KE6KXO) and Lou (WA6QYS) and Goetz (K6GKB), who repeatedly missed the simplicity of his plan. Once up, Greg's preliminary tests with a handheld were encouraging. There are still many details to be worked out, but this project is now well underway.

Precision Run Amok

When I put up my tubular tower and placed a rotor at its top and then my three element beam on top of that, I had a new problem to solve. The Hy-Gain rotator has the classical control box with a compass card to indicate direction. How do I get the pointer on the controller to agree with the antenna out there on the tower? So I began asking questions and soon realized I would have to do some research on my own. I quickly reasoned that North had to be True North as all the azimuthal maps were based on this heading. Determining where True North was became my next concern and this I wanted to be very accurate. Most people asked me why this was important when the beam spread out over at least 15 degrees, but by this time I had it in my mind to do this right. I ruled out a magnetic compass for any number of reasons, local disturbances, accuracy of the compass and magnetic declination being among them.

The tower was up and cast a beautiful shadow on the ground, why not just trace the shadow on the ground at high noon? I ruled out using the North Star as it is high in the sky and difficult to do at night. I tried looking up high noon for any given day on the internet but gave up after much searching. So I went to the program "DX Atlas" which I had downloaded from the internet. This program shows the whole earth and allows you to pinpoint your station (tower) location. Having done this you can click on the navigation tool which then allows you to figure the great circle root to any place on the planet. If you pull this straight down across the equator and set it to 180 degrees exactly, you can wait for the sun icon to march across the screen and straddle this great circle root. At this instant you run outside and mark the shadow of your tower.

My next problem was that the rotator is too high up on the tower, or better yet, I am too old and afraid of heights to get up there and diddle with clamps, so what to do? I decided to lower

the tower with a block and tackle until the reflector of the antenna was just touching flat on the ground. This put the beam straight up or ninety degrees to the tower. My installation allows the antenna to drop with great accuracy from its vertical position and this allows the angle between its lowered position and the shadow on the ground to be measured. Working backwards, I calculated in which direction the antenna was currently pointed. I loosened the rotor from the tower, went into the house, set the calculated heading on the control box and then went outside again. I tightened the rotor to the tower, pulled the tower back into place and secured everything for the long haul.

The last step was to go back into the house, turn the controller to True North and hope my calculations were correct. Once outside the beam was aimed right down the shadow line on the ground. Now when looking up call signs on QRZ, the bearings given are the bearing used and signals are at their max.

Goetz K. Brandt

Frequency Measuring Contest

Goetz K. Brandt

I participated in the ARRL over the air Frequency Measuring Test in November. I couldn't get anyone else interested and now I might know why. This thing is for professionals who are only worried about getting their results down to a hundredth of a Hertz! I turned in my results which were to a single cycle, but this gave me away as being a total LID! I should have guessed something was wrong when they went through a calibration description that explained how to count the beat note over a several minute period. Then the formulas to derive the correction factor which were mind boggling as well. Of course they explained that you should turn your radio on 24 hours before the calibration begins.

So here are my results beside the actual results.

	<u>ME (kHz)</u>	<u>THEM (kHz)</u>	<u>ERROR (Hz)</u>
40 meter			
K5CM 7:15PM	7055.713	7055.71367	0.67
W8KSE 7:25 PM	7055.822	7055.82330	-1.30
W6OQI 7:35 PM	7055.688	7055.68833	0.33
80meter			
K5CM 7:45PM	3579.313	3579.31528	-2.28
W8KSE 7:55PM	3579.352	3579.35170	-0.30
W6OQI 8:05PM	3579.288	3579.28788	-0.12

I used the CW+ and CW- function and tuned the pitch to be the same with my ears. My ICOM IC-775 seems to be pretty close, it has a TCXO and the weak link in the whole effort was my ears!

Of course I was not a contender, but it was fun nevertheless. This contest is held more than once a year and can be fun. Try it, you'll like it.

Our February meeting featured History of Radio Development

The January 9th SCCARA General meeting featured a presentation by Rick Ferranti, W6NIR: Calling All Rangers: A History of Radio Development in the US Forest Service, 1930 - 1960.

In Ricks own words: *When the USDA Forest Service (USFS) was established more than a century ago, the only way to report a forest fire was by horseback or on foot. A few years later, field telephones came into use, but lines were strung only to a few lookouts, and almost never to the fire line. It was radio that brought instant communications from ranger station to fire camp to smokejumper, greatly enhancing firefighter effectiveness and safety.*

Spearheaded by a grizzled forest ranger and radio hobbyist in 1927, the USFS pioneered the development of compact, rugged, simple field communications gear in the Pacific Northwest during the 1930's and 40's. A handful of forestry engineers, almost all of them radio amateurs, solved the problems of radioing through heavy timber and over mountains, becoming the first to discover and exploit a new high-frequency skywave propagation mode. Their VHF equipment surpassed all others in portability, performance, and innovation. This presentation will feature dozens of vintage photographs, a film excerpt, and exhibits and demos of rare Forestry radio gear dating from spark transmission to a 1930's HF QRP portable transceiver.



Portable USFS HF transceiver in operation at the Bull Lake Fire, Kootenai National Forest, 1939

Rick Ferranti is a Principal Research Engineer at SRI International (formerly Stanford Research Institute) in Menlo Park. Though a Bay Area native, he lived near Boston for over two decades, where he was an Associate Group Leader at MIT's Lincoln Laboratory. Rick has given many presentations on radio and radar history, at MIT, Stanford, Lockheed Martin, the IEEE, at the Dayton Hamvention, and for the US Forest Service. He has been a licensed amateur radio operator for over 40 years, and lives in San Carlos with his wife, two sons (both amateurs) and a garage full of old electronics.

Fred Townsend

ARRL News

From *The ARRL Letter*, January 5, 2012

BPL PROVIDER IBEC ANNOUNCES SHUTDOWN

IBEC -- one of the very few remaining operators of Access BPL systems -- has announced that it is closing down. In an undated announcement that appeared on the IBEC website, the company announced that it has "no other option than to close our doors and cease operations." IBEC claims that it cannot recover financially from the April 2011 tornadoes in Alabama that "ravished [sic] some of our major service areas." IBEC provided Internet service via broadband over power lines (BPL) to rural communities.

"While we regret the loss of jobs brought about by IBEC's BPL business failure, in the long run the rural areas that IBEC was trying to serve will be better served by broadband technologies that are superior to BPL and do not pollute the radio spectrum," said ARRL Chief Executive Officer David Sumner, K1ZZ. "While initially IBEC was cooperative in addressing the ARRL's concerns about interference to licensed radio services -- including Amateur Radio -- the ARRL was dismayed to find that the systems as actually deployed fell short of meeting even the inadequate requirements of the FCC's rules. We hope that this latest in the long string of Access BPL failures will persuade the few remaining fans of BPL to turn their attention elsewhere." (Read more at www.arrl.org/news/bpl-provider-ibec-announces-shutdown.)

ARRL ANNOUNCES DIAMOND DXCC CHALLENGE

2012 is the 75th anniversary of the ARRL's DXCC Award, the world's preeminent DXing award. To celebrate this important milestone, the ARRL has gone back to the beginning -- the 1937 DXCC List. The Diamond DXCC Challenge will test DXers ability to contact all the 231 entities on the original DXCC List.

We tried to find corresponding entities today that would represent the places listed in 1937, and we were mostly successful. There are a couple of places that were merged, like French and British New Hebrides, and the Papua and New Guinea Territories. In those places, for 2012 if you work a YJ or a P29 (on the main island of New Guinea) you will get credit for working two entities! Many other oddities are sprinkled throughout the list, too. Returning to the air in 2012 will be the Canal Zone (any HP operating within 8 kilometers of the Panama Canal), the Cities of Gdansk, Poland, as well as Ifni, Morocco and Balochistan.

For some entities that now consist of multiple countries, you may work any of today's entities to qualify for that single 1937 country. For example, French Equatorial Africa will be considered worked if you log a station in TL, TN, TR or TT in 2012. The Diamond DXCC country tables show the current entity names and prefixes that qualify for the 1937 countries. (Read more at www.arrl.org/news/arrl-diamond-dxcc-challenge.)

ARISSAT-1 RE-ENTERS EARTH'S ATMOSPHERE, FALLS SILENT

According to AMSAT (www.amsat.org/amsat-new/index.php), ARISSat-1 stopped transmitting (www.arissat1.org/v3/) on the morning of January 4. It is believed that the satellite re-entered the Earth's atmosphere around 0700 UTC (+/- three hours) and was destroyed soon after. Telemetry reports showed that the temperature aboard ARISSat-1 had been rising as the atmospheric drag began to affect the satellite. The predicted decay location is an open part of the South Atlantic, well west of Angola.

The last telemetry reports indicated that the internal temperature had topped 167 degrees Fahrenheit and was rising rapidly. Konstantin Vladimirovich, RN3ZF, sent a reception report of a pass at 0842 UTC and stated, "The telemetry was absent, voice messages were not legible, very silent and interrupted. Most likely, I saw the last minutes in the life of the satellite." The last full telemetry captured was received from ground stations as the satellite passed over Japan at 0602 UTC on January 4.

ARISSat-1 was deployed from the International Space Station on August 3, 2011 during EVA-29 on by Cosmonaut/Flight Engineers Sergei Volkov, RU3DIS, and Alexander Samokutyaev. The satellite carried a student experiment from Kursk State University in Russia that measured atmospheric density. Students from around the world provided the voices for the FM voice announcements.

AMSAT President Barry Baines, WD4ASW, said that ARISSat-1 marked a new type of satellite that captured the attention of the national space agencies around the world. "With ARISSat-1, we have been able to design, launch, and operate a unique educational opportunity," he explained. "By designing an educational mission aligned with NASA's Science, Technology, Engineering and Mathematics goals, radio amateurs around the world have been able to enjoy a new satellite in orbit."

ARISSat-1 achieved several "firsts" for Amateur Radio in space, including the first flight test of the AMSAT Software Defined Transponder, which included an FM voice downlink cycling between student messages, spoken telemetry and SSTV; a 16 kHz bandwidth linear transponder; a CW beacon carrying telemetry and call signs of radio amateurs (noting their significant contributions to Amateur Radio in space) and a robust, forward-error-corrected 1kbps BPSK digital downlink carrying satellite telemetry and Kursk experiment telemetry.

YAESU'S AMATEUR RADIO DIVISION BREAKS WITH MOTOROLA, CHANGES NAME TO YAESU MUSEN

After four years under the Motorola umbrella, Yaesu has split from that company. According to Vertex Standard President and Chief Executive Officer Jun Hasegawa, effective January 1, 2012, Motorola will keep the Vertex Standard Land-Mobile Division, while the amateur, marine and air-band will be under the Yaesu Musen banner. The new company will be known as Yaesu USA in the US.

ARRL 10 METER CONTEST SETS RECORD

As of January 5, almost 5200 logs have been received for the ARRL 10 Meter Contest (www.arrl.org/10-meter). Contest Manager Sean Kutzko, KX9X, is happy to have sunspots back: "This just goes to show what sunspots can do for activity. When the solar flux climbed to 190 in September, it was like the first warm day after a long winter; people came out to play -- and play they did, in unprecedented numbers! Activity during this contest season has been nothing short of tremendous, and it seems to have reached a zenith for the ARRL 10 Meter Contest. Old Timers and new licensees from all around the world got on the air and had one heck of a good time on 28 MHz the second weekend in December, shattering the participation record by more than 2300 logs. And we still have a week to go before the log submission deadline!"

ARRL REQUESTS FEEDBACK FOR 60 METER BAND PLAN

In November 2011, the FCC released a Report & Order detailing new rules for the 5 MHz (60 meters) Amateur Radio band. These rules have not yet been published in the Federal Register. In order to be official, the rules must be published in the Federal Register

and will take effect 30 days after the publication date. The R&O brings with it a number of changes for 60 meter operators. Considering the expected increase in 60 meter activity when the R&O finally takes effect, the ARRL is asking for feedback to assist in crafting a proposed band plan. (Read more at www.arrl.org/news/arrl-requests-feedback-for-60-meter-band-plan.)

HAM RADIO IN HOLLYWOOD: AMATEUR RADIO A PLOT POINT IN MAJOR MOTION PICTURE

According to previews, the plot of the movie *Journey 2: The Mysterious Island* -- set to be released February 10 -- hinges on Amateur Radio. The movie's hero Sean Anderson (played by Josh Hutcherson) receives a coded distress signal that comes from a mysterious island where no island should exist. Sean decides to follow the signal with the unwilling assistance from his stepfather Hank (played by Dwayne "The Rock" Johnson).

Sean explains to Hank why he wants to hunt down the signal: "A few nights ago, a radio signal got sent out from these coordinates. It could be the mysterious island that Jules Verne wrote about." Hank replies: "You think you're gonna travel halfway around the world and meet up with some lunatic who's messing around on a ham radio?" "That's not some lunatic," Sean says. "That's my grandfather." (Read more at www.arrl.org/news/em-ham-radio-in-hollywood-em-amateur-radio-a-plot-point-in-major-motion-picture.)

From *The ARRL Letter*, January 26, 2012

WRC-12: WORLD RADIOCOMMUNICATION CONFERENCE 2012 BEGINS IN SWITZERLAND, CONSIDERS SECONDARY MF AMATEUR ALLOCATION

The World Radiocommunication Conference (WRC-12) opened in Geneva, Switzerland on Monday, January 23. Attendees will review and revise the Radio Regulations, the international treaty governing the use of radio frequency spectrum and satellite orbits. One of the items to be considered at WRC-12 is Agenda Item 1.23: To consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the Amateur Service on a secondary basis, taking into account the need to protect existing services.

More than 3000 participants -- representing more than 150 out of the International Telecommunication Union's 193 Member States -- are expected to attend the four-week conference. About 100 Observers from among the ITU's 700 private sector members -- along with international organizations, including the International Amateur Radio Union -- are also in attendance. A number of WRC-12 delegates are radio amateurs.

Members of the IARU Team include: IARU President Tim Ellam, VE6SH; IARU Vice President Ole Garpestad, LA2RR; IARU Secretary Rod Stafford, W6ROD; IARU Region 1 President Hans Blondeel Timmerman, PB2T; IARU Region 2 President Reinaldo Leandro, YV5AM; IARU Technical Representative Ken Pulfer, VE3PU, and ARRL Chief Executive Officer David Sumner, K1ZZ. ARRL Chief Technology Officer Brennan Price, N4QX, and ARRL Technical Relations Specialist Jon Siverling, WB3ERA, are serving as members of the US delegation. Price is serving as Chairman of the sub-committee that will consider Agenda Item 1.23. Read more at www.arrl.org/news/world-radiocommunication-conference-2012-begins-today-in-switzerland-will-consider-secondary-mf-amat.

Treasurer's Treatise

Financial Statement 2011 (1/5/2011 - 12/31/2011)

Inflows

Auction	230.00
Club Badges	17.50
Club Dues, 2011	595.00
Club Dues, 2012	590.00
Donation	15.11
Flea Market Income	2,841.15
Holiday Luncheon, 2010	45.00
Holiday Luncheon, 2011	562.00
Interest Income	0.34
Total inflows	4,896.10

Outflows

AMSAT	80.00
BBS	478.86
Business Cards	151.34
Field Day	1,229.21
Flea Market Expense	1,625.00
Holiday Luncheon, 2011	735.15
Insurance	200.00
Misc	79.64
PO Box	62.00
Postage	9.70
SCCARA-GRAM	1,586.97
Secretary Of State	20.00
Stanford Pow Wow	40.00
Tax	50.00
Trailer Registration	10.00
Total outflows	6,357.87

Net cash flow -1,461.77

Bank Accounts

Account	starting 2011	ending 2011
Checking	5,193.98	6,997.70
Savings	3,847.12	500.07
Cash	0.89	82.45
TOTAL	9,041.99	7,580.22

Goetz, K6GKB

Meeting Minutes

General Meeting, Dec. 17, 2011



Creekside Inn, 544 Alma Ave, San Jose, CA Status: Unreviewed

The December meeting was a Christmas luncheon at the Creekside Inn.

Bob Vallio W6RGG, ARRL pacific Division Director, spoke on current ARRL activity, and introduced the incoming club officers. A gift exchange was held after the lunch. Photos of the officers were taken afterwards.

Viki Moldenhauer, Secretary KI6WDS

General Meeting, Jan. 9, 2012



Kaiser Hospital, 710 Lawrence Expressway, Santa Clara CA 95051 Status: Unreviewed

The SCCARA General Membership Meeting was called to order by Don Steinbach AE6PM at 19:35.

Introductions of members and guests were made.

Announcements:

The SVECS breakfast will be January 28th at 9am at the Santa Clara Senior Center, with the presentation at 10am; our club station will be open in the afternoon.

Don K6PBQ announced we have reservations for Mt. Madonna park for Field Day.

Viki KI6WDS shared an email invitation received from the Palm Springs Hamfest, also January 28th.

Someone mentioned that Quartzite is January 21-22.

Don K6PBQ announced the MS Walk will be Saturday April 28 in downtown San Jose across from the HP Pavilion. They need volunteers for net control and the rest stops.

Pacificon will be coincident with the ARRL National Convention, in Santa Clara in October.

The Board meeting is next Monday night and all are welcome.

Fred AE6QL introduced Rick Ferranti W6NIR who gave a presentation "Calling all Rangers: A technical history of radio development in the US Forest Service 1930 - 1960". Besides the narrative accompanying the fascinating historical photographs in the viewgraphs, he brought actual examples of some of the radios developed by the Forest Service Radio Laboratory. He answered questions about the radios after the meeting, when members could go look at them more closely.

The meeting was adjourned at 20:45.

Viki Moldenhauer, Secretary KI6WDS

Board Meeting, Jan. 16, 2012



Minutes of SCCARA Board Meeting, January 16, 2012 Red Cross Building, 2731 N 1st St, San Jose CA Status: Unreviewed

The SCCARA Board Meeting was called to order by Don AE6PM at 19:36.

Attendance: President: Don Steinbach AE6PM; Vice President: Fred Townsend AE6QL; Secretary: Viki Moldenhauer KI6WDS; Treasurer: Goetz Brandt K6GKB; Trustee: Don Village K6PBQ; Directors: John Glass NU6P, Lou Steirer WA6QYS, Gregg Lane KF6FNA, Gary Mitchell WB6YRU; Wally Britten KA6YMD; Visitors: David Paul AE6MV (RACES liaison), Clark Murphy KE6KXO, Joe Castellano W6SNV, Gwen Steirer KF6OTD.

Announcements: Don AE6PM announced the SCCARA-gram inputs are due to Gary no later than January 30, 2012.

David AE6MV requested use of the club repeater for the Santa

Clara County Emergency Communications Exercise on Saturday Jan 21 from 12 to 2pm (the exercise runs till 4pm). There were no objections, and permission was granted.

Treasurer's Report: Goetz K6GKB reported balances: checking = \$7,210.70; savings = \$500.07; cash = \$102.45. He has Quicken Deluxe on order. He will go back to the bank to set up internet access. He also will file the CA state form with Don's address for the club's "business address", and updated PO box address.

Secretary's Report: Viki KI6WDS reviewed the Board meeting minutes that still need to be reviewed: April, June, September and December. These have been published in the following-month SCCARA-grams, and will be reviewed next board meeting. Gary WB6YRU passed out updated copies of the welcome packet and repeater information for members to read and bring back edits to the next board meeting.

Vice President's Report: Fred AE6QL announced the next speaker will be John Rosica KA2FND with the topic of Near Vertical Incidence Skywave (NVIS); he will also give a demo, using an antenna set up between the Kaiser buildings, and contacting Sacramento. Gary WB6YRU suggested asking Don Apte KK6MX to speak on ATV. John NU6P had heard Eric Norris WD6DBM give a presentation on Moonbounce to the West Valley Amateur Radio Club. Gary WB6YRU also suggested that if we want to have a Member's Night, or Homebrew Night, we should announce it now to give people some months to prepare.

Discussion Topics:

- bank signature authorization: Don AE6PM and Goetz K6GKB completed this.
- 2011 Financial Summary: John K6HW sent a report to the board in email, which will be published in the SCCARA-gram.
- Membership renewals: several board members renewed, and it is time to remind club members to renew.
- VE session handout: Gary WB6YRU has a form for inviting potential members to join, which Don AE6PM will make copies of to hand out at the ham radio testing session (on the 1st and 3rd Saturdays at the Saratoga Fire Station), along with club cards. Goetz K6GKB offered to write a program to download information from the FCC database and scan for new members in the area.
- PayPal: Gary WB6YRU suggested it would be nice if people could fill out a membership form on the web site, and pay for it right then through PayPal. Fred AE6QL and Goetz K6GKB will look into what we would need to do.
- Don AE6PM brought in new copies of the ARRL Handbook and the Repeater Directory which Bob Vallio gave to the club. After discussion, John NU6P made a motion to sell tickets for \$1 at the February club meeting; Don AE6PM modified the motion to raffling one in February and the other in April since March is the dinner meeting. Fred AE6QL objected that these raffles wouldn't raise much money, and someone who doesn't have much resources could use them. Gregg KF6FNA suggested letting people who already have the raffled book could put their tickets back in and re-draw. Lou WA6QYS seconded John's modified motion; it carried with one nay and nine aye. In summary, we will sell tickets for these items, one at each of the February and April meetings.
- 2M repeater: John NU6P reported that the new repeater is on order, for \$1400 with the built-in AC power supply. John's friend will program it and tune it up on our channel (146.985). The plan is to put the repeater up close to the Eagle Rock location of our existing repeater. John requested it be programmed to our channel, but with a different PL tone than our main repeater, instead using 107.2, the same as our 440 repeater. This way we could have both repeaters on at the same time, set both to having a short hang time, and have a QSO with one party on each one, talking to each other. This would let us check repeater operation. If the new one does not have a courtesy tone, people could tell which repeater they are on (Eagle Rock repeater does have a courtesy tone). By popular

request, John will lengthen the interdigit timer on the main repeater. John needs to be reimbursed for the repeater.

- 2M repeater antenna: Gregg and a team set up the 50ft pushup mast from John Parks W6JPP, coax from Clark KE6KXO, the Comet antenna from the shed, and a Yaesu handheld in a location near Eagle Rock. With the 0.5W handheld transceiver, they could hit members' houses around the valley, NFI, Santa Cruz, and Mill Valley (not the Diablo repeater because of a ridge in between). The antenna reaches down into the valley. The conclusion is the alternate repeater site location is feasible. The antenna is not guyed at this point. Fred AE6QL noted that the reputation of this antenna is not good in high wind; although it is ok as a test antenna, we might consider getting a commercial antenna.
- MOU: Fred announced the MOU agreement has been located (by the city of San Jose) and will be returned.
- Goetz will submit an article about "Works in Progress" for the SCCARA-gram.
- Goetz will also send pictures from the Christmas party to Gary for the SCCARA-gram (188K is a good size, and captions are appreciated).
- Fred AE6QL will send Gary the name, callsign, and title for the next month's speaker for the SCCARA-gram.
- 2012 Field Day Planning: Don AE6PM retracted his earlier statement that we have band-pass filters to solve the SSB/CW conflicts in the Field Day setup; they aren't band-pass. He gave Gregg some printouts of what other clubs have done to solve this problem. Other discussion was held regarding the problems last year: The CW station was using a power inverter, the battery started dropping below the threshold (faulty battery charger), and the battery started broadbanding. Even in years when the battery wasn't dropping out, we haven't always had the same radios involved, and it isn't clear if it is a transmit or receive problem. Having both the CCW and phone stations on the same band is a problem. The conclusion was that this year we will try to debug this problem. John NU6P observed that as we get higher in the sunspot cycle, the higher bands will open up and people will have more choices. Fred AE6QL volunteered to help Gregg KF6FNA to come up with an antenna plan. Clark KE6KXO noted that PAARA runs with filters, and 4-5 transmitters, and they come in 6th in the nation; we should check with them. Gary WB6YRU recollected that some years we have run QRP, and made contacts to the east coast on 5W (!, using batteries and not a generator. John NU6P said West Valley Amateur Radio runs 9A (9 stations all QRP), and they score #3 in the nation in total points: not just QRP points, total! They also have other special equipment, like mono band beams, and band pass filters. Gregg KF6FNA will recruit people and do a dry run at some park.

Miscellaneous Reports and Announcements:

Station Trustee's Report: Don K6PBQ has reservations for Mt. Madonna, and needs to be reimbursed for the \$438. Fred AE6QL has downloaded the Change of Address sheets for the 2 club licenses for the post office box change. Don encourages people to use the club radios for Field Day instead of personal ones: we have the 140, 440, 450, and 2 Yaesu's. Lou WA6QYS announced that George Williams doesn't want the club storing excess radios at the Red Cross; just the primary club radio, and a spare. Don will make reservations for the Christmas luncheon again. Gwen KF6OTD got volunteered to setup the dinner meeting for March; she will look into the Elephant Bar by Valco.

Editor's Report: Gary WB6RYU announced the copy count is down on the mailing list, saving the club money. People are to be encouraged to switch to internet delivery if possible.

N0ARY BBS Report: Gary WB6YRU has found that a new user in San Francisco can work the BBS (on Mt. Umunhum) without any trouble. Another user in Park Ridge (in the Sierra mountains east of Fresno) could work 2m and 70cm (which has a 5W port!).

Repeater Chairman's Report: Wally KA6YMD had nothing new to report.

Web Masters Report: Wally KA6YMD is publishing what he receives.

Don AE6PM adjourned the meeting at 21:01.

Viki Moldenhauer, KI6WDS, Secretary

2 M Antenna Project

Searching through the ARRL archives I came across an article describing a \$20 antenna project. This sounded intriguing, so I read until I had most of the concept memorized. The first step was to order the Radio Shack FM antenna that was going to be cannibalized for this project. Here was my first obstacle as RS no longer carried this antenna. As a last resort I tried searching with GOOGLE for an antenna that might be a substitute. Turns out, I found the exact same antenna being sold by AntennaCraft, who might have been the original supplier to RS. The antenna is called an FM6 and can be found for almost the original \$20! I ordered it over the internet and when it arrived I was able to confirm that it was exactly the same antenna originally specified.

I won't duplicate the original article which is masterfully perfect in its step by step instructions. I will suggest that the aluminum strip required for the gamma match and the angle piece for the PL-259 connector be made from one of the left over antenna elements. By using a long tapered drift you can hammer the drift down through the excess left over split tube to open it up enough to allow flattening of the element. This gives you more than enough supple aluminum to make the angle adaptor and the matching strap. It will be soft enough to allow all the bending required.

The other modification was using the replacement driven element screw to attach both the repositioned driven element and the PL-259 angle adaptor to the boom. Properly done, the PL-259 adaptor will be in the exact place required and will save you drilling extra holes and using extra screws.

Tools required for this job are a drill to remove the aluminum rivets that hold the elements in their original positions. An automatic center punch would be useful in center punching the rivets to start the drill properly, but this is not absolutely necessary. The drill should be equal to or greater than the diameter of the rivet. Tin snips would be nice, however I used a pair of Fisker stainless steel scissors to cut the strap to size. A long tapered drift to open up the antenna element as well as a hammer to flatten the opened antenna element. I had an anvil for this purpose, but the heel of a vice might do well. A hack saw with very fine teeth. My hack saw was too course and could only be used on the pull stroke, not the push stroke. Screw driver and small crescent wrench complete the tools required.

The fasteners and everything are in the article. Here is the article: www.cu2ara.com/files/144Yagi.pdf

For reasons unclear to me, you might have to drag on the page slider on the right hand side of the display before anything appears. In any case, the antenna when assembled was brought to Clark Murphy's house where an existing 2 meter antenna was incapable of allowing a 5 watt HT to trigger the repeater at eagle rock. We followed the instructions and aimed the antenna straight up and used an MFJ 259B SWR analyzer to tune the gamma match. We got a deep 1:1 null at 144.7Mhz. Moving the gamma

match shorting strap back and forth did nothing to change the frequency. Being too lazy to shorten the elements, we sent the Yagi up the push up mast and pinged the repeater and got a kerchunk. We put out a call at the previously insufficient 5 watts and got an immediate response from John (W6JPP) who gave us a solid signal report. Cutting the power by half still allowed contact with the repeater.

So the project has been judged a complete success and can be recommended to anyone with the inclination.

Goetz K. Brandt

Packet Pieces

Downloaded from the BBS packet network:

=====
Date: 22 May 2010 02:14
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Dangling Particles

- The burglar was about 30 years old, white, 5' 10", with wavy hair weighing about 150 pounds.

- The family lawyer will read the will tomorrow at the residence of Mr. Hannon, who died June 19 to accommodate his relatives.

~ Mrs. Shirley Baxter, who went deer hunting with her husband, is very proud that she was able to shoot a fine buck as well as her husband.

- Organ donations from the living reached a record high last year, outnumbering donors who are dead for the first time.

- The dog was hungry and made the mistake of nipping a 2-year-old that was trying to force feed it in his ear.

- We spent most of our time sitting on the back porch watching the cows playing Scrabble and reading.

- Hunting can also be dangerous, as in the case of pygmies hunting elephants armed only with spears.

=====
Date: 3 Jun 2010 02:34
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: A Deep Voice

A man walks along a lonely beach. Suddenly he hears a deep voice: DIG!

He looks around: nobody's there. "I am having hallucinations," he thinks. Then he hears the voice again: I SAID, DIG !

So he starts to dig in the sand with his bare hands, and after a bit, he finds a small chest with a rusty lock.

The deep voice says: OPEN!

Ok, the man thinks, let's open the thing. He finds a rock with which to break the lock, and when the chest is finally open, he sees a lot of gold coins.

The deep voice says: TO THE CASINO!

Well, the casino is only a few miles away, so the man takes the chest and walks to the casino.

The deep voice says: ROULETTE!

So he changes all the gold into a huge pile of roulette tokens and goes to one of the tables where the players gaze at him with disbelief.

The deep voice says: 27!

The man takes the whole pile and drops it at the 27. The table nearly bursts. Everybody is quiet when the croupier throws the ball.

The ball stays at the 26.

The deep voice says: OOOPS!

=====
Date: 2 Jul 2010 00:07
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Discouraged?

As I was driving home from work one day, I stopped to watch a local Little League baseball game that was being played in a park near my home. As I sat down behind the bench on the first-base line, I asked one of the boys what the score was.

"We're behind 14 to nothing," he answered with a smile.

"Really," I said. "I have to say you don't look very discouraged."

"Discouraged?" the boy asked with a puzzled look on his face. "Why should we be discouraged? We haven't been up to bat yet."

=====
Date: 4 Jul 2010 02:35
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Divy It Up!

A 6th grade teacher posed the following problem to one of her arithmetic classes:

"A wealthy man dies and leaves ten million dollars. One-fifth is to go to his wife, one-fifth is to go to his son, one-sixth to his butler, and the rest to charity. Now, what does each get?"

After a very long silence in the classroom, one little boy raised his hand and with complete sincerity in his voice, answered, "A lawyer!"

Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics including who to contact for each.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form from the club secretary.

Antennas, feed-lines, tuners: WB6EMR, W6JPP, K6PBQ, WB6YRU
Lightning protection, grounding: WB6YRU
Station set-up, equipment: K6PBQ, W6JPP
TVI/RFI: WB6YRU
Homebrew projects, construction: KD6FJI, WB6YRU
Computers: older IBM PC: WB6YRU
Packet Network (BBS, forwarding): WB6YRU
Code operating and installations: WB6EMR, K6PBQ
DX (long distance/propagation): WB6EMR
Emergency operating/preparedness: WA6QYS
HF operating techniques (SSB, CW): WB6EMR, K6PBQ
Legal/FCC rules: WB6YRU
SCCARA (club inner workings): K6PBQ, WB6YRU, WA6QYS
EchoLink: KK6MX

WB6EMR, James D. Armstrong, Jr.,
evening & msg: (408) 945-1202

KD6FJI, Lloyd DeVaughns,
(408) 225-6769 e-mail: kd6fji@arrl.net

KK6MX, Don Apte, (408) 629-0725
e-mail: kk6mx@aol.com

W6JPP, John Parks, (408) 309-8709
e-mail: w6jpp@arrl.net

K6PBQ, Don Village, (408) 263-2789
e-mail: donvillage7@yahoo.com

WA6QYS, Lou Steirer, (408) 241-7999
e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, (408) 269-2924
packet: home BBS NOARY
e-mail: wb6yru@ix.netcom.com

Newsletter Notes

I'd like to thank Goetz for starting a new column in the *SCCARA-GRAM*, Work in Progress. The difference here is that most of it is up to *YOU*. So, please keep Goetz informed as to what you've been doing lately.

It reminds me a little bit of a column we had many years ago called "Good and Welfare." Remember that? Basically is was a gossip column about what's going on with members. This one is more aimed toward amateur radio.

It should be a fun column.

73, Gary WB6YRU, editor



SCCARA

Santa Clara County Amateur Radio Association
PO Box 106
SAN JOSE CA 95103-0106

Affiliate of the ARRL,
American Radio Relay League



FIRST CLASS

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2012

If none of your info has changed, fill in name and call only

Name: _____ Call: _____ Class: E A G T N

Address: _____ Licensed since (yr): _____

City: _____ State: _____ Zip: _____ - _____ Licence Expiration
Date (mo/yr): _____

Telephone: () _____ New Member Renewal
 I'm also a member of the ARRL

E-mail: _____

Memberships begin January 1 and expire December 31.

If renewing: annual membership dues (base rate) are: \$20 Individual, \$25 Family, \$10 Student (under 18)

For new members:

If joining in January: base rate

If joining in February through October: base rate x (11 - month) x 10% (e.g. for June, that would be: base rate x 50%)

If joining in November or December: free for November and December if paying the base rate for the following year

\$ _____ **Dues payment for:** individual family student

For family memberships (at the same address), please include a separate form for each family member.

I want the newsletter by: U.S. Mail internet (make sure your e-mail address is legible and correct)

Give this completed form (or copy) with payment to the Secretary or Treasurer at any meeting or mail to the club address.